



#4

SEQUENCE LISTING

<110> Mark Marchionni
Michael Jarpe
Ted Ebenda

<120> METHODS FOR TREATING NEUROLOGICAL
INJURIES AND DISORDERS

<130> 47506 (71095)

<140> 09/756,481

<141> 2001-01-08

<150> PCT/US99/15106

<151> 1999-07-02

<150> 60/091,791

<151> 1998-07-06

<160> 2

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 1387

<212> DNA

<213> Artificial Sequence

<220>

<221> CDS

<222> (218)...(1288)

<400> 1

| | | | | | | |
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| cccttctcca | gggactctgg | ctgccagcac | ctccgccttt | cagatcaatt | ctcgaccacc | 60 |
| caccttggga | ctgcccggca | gtcctgcctt | ctggatcagt | gggttccaga | cacgccccct | 120 |
| ccaggacctc | aaagcacccc | cgacctaagg | tcaccagccc | actggcccca | gacgcagtgg | 180 |
| gctccgctga | ctcttttggaa | caccccttgg | gaggaaa | atg ctc cct | gtc tgc cat | 235 |
| | | | | Met | Leu Pro Val Cys His | |
| | | | | 1 | 5 | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| cgt | ttt | tgc | gac | cac | ctc | ctc | ctg | ctc | ttg | ctg | ccc | tcg | acg | acc | 283 | |
| Arg | | Phe | Cys | Asp | His | Leu | Pro | Ser | Thr | Thr |
| | | | | | | 10 | | | 15 | | | | | | 20 | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ctg | gcc | ccc | gcg | cca | gca | tcc | atg | ggc | ccc | gct | gcc | gcc | ctg | ctc | cag | 331 |
| Leu | Ala | Pro | Ala | Pro | Ala | Ser | Met | Gly | Pro | Ala | Ala | Ala | Leu | Leu | Gln | |
| | | | | | | | 25 | | 30 | | | | 35 | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| gtt | ctt | ggg | ctt | ccc | gaa | gcg | ccc | cg | agc | gtc | ccc | aca | cac | cga | cct | 379 |
| Val | Leu | Gly | Leu | Pro | Glu | Ala | Pro | Arg | Ser | Val | Pro | Thr | His | Arg | Pro | |
| | | | | | | | 40 | | 45 | | | 50 | | | | |

| | | | | | |
|---|-----|-----|-----|-----|-------|
| gtg cct cct gtc atg tgg cgc cta ttc cgt cgc cgt gac ccc cag gag | 55 | 60 | 65 | 70 | 427 |
| Val Pro Pro Val Met Trp Arg Leu Phe Arg Arg Arg Asp Pro Gln Glu | | | | | |
| gcc aga gtg gga cgc cct ctg cgg cca tgc cac gtg gag gaa cta ggg | 75 | 80 | 85 | | 475 |
| Ala Arg Val Gly Arg Pro Leu Arg Pro Cys His Val Glu Glu Leu Gly | | | | | |
| gtc gcc gga aac att gtg cgc cac atc ccc gac agc ggt ctg tcc tcc | 90 | 95 | 100 | | — 523 |
| Val Ala Gly Asn Ile Val Arg His Ile Pro Asp Ser Gly Leu Ser Ser | | | | | |
| agg ccc gca caa ccc gcc agg acc tcg ggg ctg tgc ccc gag tgg aca | 105 | 110 | 115 | | 571 |
| Arg Pro Ala Gln Pro Ala Arg Thr Ser Gly Leu Cys Pro Glu Trp Thr | | | | | |
| gtc gtc ttt gac ctg tcg aat gtg gag ccc aca gag cgc cca aca cgc | 120 | 125 | 130 | | 619 |
| Val Val Phe Asp Leu Ser Asn Val Glu Pro Thr Glu Arg Pro Thr Arg | | | | | |
| gcg cgc tta gag ttg cgg ctg gag gct gag tgt gaa gat aca gga ggg | 135 | 140 | 145 | 150 | 667 |
| Ala Arg Leu Glu Leu Arg Leu Glu Ala Glu Cys Glu Asp Thr Gly Gly | | | | | |
| tgg gag cta agc gtg gca ctg tgg gcc gac gca gag cat cca ggg cct | 155 | 160 | 165 | | 715 |
| Trp Glu Leu Ser Val Ala Leu Trp Ala Asp Ala Glu His Pro Gly Pro | | | | | |
| gag ctg ctg cgc gtg ccg gcg cca cca ggg gtg ctc ctg cgc gca gac | 170 | 175 | 180 | | 763 |
| Glu Leu Leu Arg Val Pro Ala Pro Gly Val Leu Leu Arg Ala Asp | | | | | |
| cta ctg ggg act gca gta gcc gcc aac gca tca gtg ccc tgt act gtg | 185 | 190 | 195 | | 811 |
| Leu Leu Gly Thr Ala Val Ala Ala Asn Ala Ser Val Pro Cys Thr Val | | | | | |
| cgc ctg gcg ctg tca ctg cac cct ggg gcc act gca gcc tgt ggg cgc | 200 | 205 | 210 | | 859 |
| Arg Leu Ala Leu Ser Leu His Pro Gly Ala Thr Ala Ala Cys Gly Arg | | | | | |
| ctg gct gag gcc tcc ctg ctg gtg acg ctg gac cca cgc ctg tgt | 215 | 220 | 225 | 230 | 907 |
| Leu Ala Glu Ala Ser Leu Leu Leu Val Thr Leu Asp Pro Arg Leu Cys | | | | | |
| ccc ttg ccg cga ttg cgg cgc cac acg gag ccc agg gta gaa gtt ggt | 235 | 240 | 245 | | 955 |
| Pro Leu Pro Arg Leu Arg Arg His Thr Glu Pro Arg Val Glu Val Gly | | | | | |
| cca gtg ggc act tgt cgt acc cga cgg ttg cat gtg agc ttc cgt gag | 250 | 255 | 260 | | 1003 |
| Pro Val Gly Thr Cys Arg Thr Arg Arg Leu His Val Ser Phe Arg Glu | | | | | |

| | |
|---|------|
| gtg ggc tgg cac cgt tgg gtg atc gcg ccg cgt ggc ttc cta gcc aac | 1051 |
| Val Gly Trp His Arg Trp Val Ile Ala Pro Arg Gly Phe Leu Ala Asn | |
| 265 270 275 | |
| ttc tgc cag ggc acg tgc gca cta ccc gaa acg ctg agg gga ccc ggc | 1099 |
| Phe Cys Gln Gly Thr Cys Ala Leu Pro Glu Thr Leu Arg Gly Pro Gly | |
| 280 285 290 | |
| ggg ccg cct gca ctc aac cac gct gtg ctg cgc gcg ctc atg cac gca | 1147 |
| Gly Pro Pro Ala Leu Asn His Ala Val Leu Arg Ala Leu Met His Ala | |
| 295 300 305 310 | |
| gct gct ccc acc ccg ggt gca ggc tcg ccc tgc tgc gtg cca gag cgt | 1195 |
| Ala Ala Pro Thr Pro Gly Ala Gly Ser Pro Cys Cys Val Pro Glu Arg | |
| 315 320 325 | |
| cta tca ccc atc tcc gtg ctc ttc gac aat agt gac aac gtg gtc | 1243 |
| Leu Ser Pro Ile Ser Val Leu Phe Phe Asp Asn Ser Asp Asn Val Val | |
| 330 335 340 | |
| ctg cga cac tac gaa gac atg gtg gtg gat gag tgt ggc tgc cgt | 1288 |
| Leu Arg His Tyr Glu Asp Met Val Val Asp Glu Cys Gly Cys Arg | |
| 345 350 355 | |
| tgaccacccg ggacaccctt tcagggacccg cccacgcaa aagcagggac tgtttgttca | 1348 |
| tgttttattt gtgacaaaaa gcttaaaaca aatttgact | 1387 |
| <210> 2 | |
| <211> 357 | |
| <212> PRT | |
| <213> Artificial Sequence | |
| <400> 2 | |
| Met Leu Pro Val Cys His Arg Phe Cys Asp His Leu Leu Leu Leu | |
| 1 5 10 15 | |
| Leu Leu Pro Ser Thr Thr Leu Ala Pro Ala Pro Ala Ser Met Gly Pro | |
| 20 25 30 | |
| Ala Ala Ala Leu Leu Gln Val Leu Gly Leu Pro Glu Ala Pro Arg Ser | |
| 35 40 45 | |
| Val Pro Thr His Arg Pro Val Pro Pro Val Met Trp Arg Leu Phe Arg | |
| 50 55 60 | |
| Arg Arg Asp Pro Gln Glu Ala Arg Val Gly Arg Pro Leu Arg Pro Cys | |
| 65 70 75 80 | |
| His Val Glu Glu Leu Gly Val Ala Gly Asn Ile Val Arg His Ile Pro | |
| 85 90 95 | |
| Asp Ser Gly Leu Ser Ser Arg Pro Ala Gln Pro Ala Arg Thr Ser Gly | |
| 100 105 110 | |
| Leu Cys Pro Glu Trp Thr Val Val Phe Asp Leu Ser Asn Val Glu Pro | |
| 115 120 125 | |
| Thr Glu Arg Pro Thr Arg Ala Arg Leu Glu Leu Arg Leu Glu Ala Glu | |
| 130 135 140 | |

Cys Glu Asp Thr Gly Gly Trp Glu Leu Ser Val Ala Leu Trp Ala Asp
145 150 155 160
Ala Glu His Pro Gly Pro Glu Leu Leu Arg Val Pro Ala Pro Pro Gly
165 170 175
Val Leu Leu Arg Ala Asp Leu Leu Gly Thr Ala Val Ala Ala Asn Ala
180 185 190
Ser Val Pro Cys Thr Val Arg Leu Ala Leu Ser Leu His Pro Gly Ala
195 200 205
Thr Ala Ala Cys Gly Arg Leu Ala Glu Ala Ser Leu Leu Leu Val Thr
210 215 220
Leu Asp Pro Arg Leu Cys Pro Leu Pro Arg Leu Arg Arg His Thr Glu
225 230 235 240
Pro Arg Val Glu Val Gly Pro Val Gly Thr Cys Arg Thr Arg Arg Leu
245 250 255
His Val Ser Phe Arg Glu Val Gly Trp His Arg Trp Val Ile Ala Pro
260 265 270
Arg Gly Phe Leu Ala Asn Phe Cys Gln Gly Thr Cys Ala Leu Pro Glu
275 280 285
Thr Leu Arg Gly Pro Gly Gly Pro Pro Ala Leu Asn His Ala Val Leu
290 295 300
Arg Ala Leu Met His Ala Ala Ala Pro Thr Pro Gly Ala Gly Ser Pro
305 310 315 320
Cys Cys Val Pro Glu Arg Leu Ser Pro Ile Ser Val Leu Phe Phe Asp
325 330 335
Asn Ser Asp Asn Val Val Leu Arg His Tyr Glu Asp Met Val Val Asp
340 345 350
Glu Cys Gly Cys Arg
355